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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,887

11/26/2003

Thomas M. Laney

87430CPK

1673

7590

05/03/2006

Paul A. Leipold  
Eastman Kodak Company  
Patent Legal Staff  
343 State Street  
Rochester, NY 14650-2201

EXAMINER

BUTLER, PATRICK

ART UNIT

PAPER NUMBER

1732

DATE MAILED: 05/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/722,887

Applicant(s)

LANEY ET AL.

Examiner

Patrick Butler

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21-26, 29 and 30 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19, 21-26, 29 and 30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of the species of monolayer layer making in the reply filed on 22 February 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Response to Amendment***

The Applicant's Amendments and Accompanying Remarks, filed 22 February 2006, have been entered and have been carefully considered. No Claims are new, Claim 19 is amended, Claims 20, 27, and 28 are canceled, and Claims 1-19, 21-26, 29, and 30 are pending.

In view of Applicant's amendment of the abstract, the Examiner withdraws the previously set forth objection as detailed in the Specification section of the Office Action dated 22 September 2005.

Despite these advances, the invention as currently claimed is not found to be patentable for reasons herein below.

The Text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 19, 21-26, 29, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (US Patent No. 5,443,780) in view of Laney et al. (US Patent No. 6,379,780).

With respect to Claim 19, Matsumoto teaches extruding a film from polyester, specifically extruded polylactic acid, and with biaxial stretching (extruding polylactic-acid based materials as a monolayer film, and stretching the sheet biaxially) (see col. 1, lines 7-9 and col. 4, lines 17-29). Matsumoto's film does not disclose additional layers and is necessarily monolayer as claimed (see col. 1, lines 36-51; col. 3, lines 17-57; and col. 4, lines 17-29).

Matsumoto does not teach blending inorganic particles into a melt comprising a polylactic-acid-based material or forming interconnected microvoids.

Laney teaches making a layer of polyester film using a mixture of microbeads made of inorganic material and performing biaxial stretching (blending inorganic particles into a melt; forming a sheet comprising a layer of material containing inorganic particles by extrusion; stretching the sheet biaxially to form interconnected microvoids around the inorganic particles, thereby obtaining a permeable microvoided sheet that is a monolayer film of polylactic acid based material) (see col. 2, lines 35-61; col. 4, lines 22-26; col. 11, lines 31-43, and col. 12, lines 23-27).

It would have been obvious to use Laney's teaching for using microbeads in the polyester material taught by Matsumoto because of the absorbency properties which

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efficiently absorb printed inks without the need of multiple processing steps or multiple coated layers (see Laney col. 2, line 62 through col. 3, line 1).

With respect to Claim 21, Matsumoto's film is stretched from 55-80 degrees C, which overlaps the claimed range of under 75 degrees C (see col. 2, lines 49-54).

With respect to Claim 22 and 23, Laney's inorganic microbeads are sized within the range of 0.01-10  $\mu$  (0.01-10 micrometer), which includes the claimed diameter range of 0.1-1 micrometer and 0.1 – 0.6 micrometer (see col. 4, lines 23-31).

With respect to Claim 24, Matsumoto teaches an example of a film made to a thickness of 100-200  $\mu$ m, which reads on the claim of 25-400  $\mu$ m (see col. 3, lines 17-21).

With respect to Claim 25, Laney teaches at least two ranges of the proportion of inorganic particles to use. Example 4 teaches calcium carbonate used as the inorganic particle at 45% by weight content, which reads on the claim in indicates that organic and inorganic particles are interchangeable to perform the invention, which reads on the claimed range of about 45% content by weight (see col. 14, lines 40-45 and col. 13, lines 52-60). Laney teaches using microbeads (inorganic particles) to an extent greater than 30% by volume, which would necessarily include the upper range of the claimed 45-75% by weight (see col. 15, lines 30-32).

With respect to Claim 26, Laney specifically teaches using barium sulfate, calcium carbonate, silica, and alumina, which read on the claim (col. 4, lines 27-31).

With respect to Claim 29 and 30, Matsumoto teaches simultaneous biaxial stretching (stretched in both directions simultaneously) and successive biaxial stretching (sequentially stretched in a machine direction first followed by a transverse direction).

It would have been obvious to one of ordinary skill at the time of the invention to pick of the directions to perform stretching in the machine direction first (machine) before the second direction (transverse).

### ***Response to Arguments***

Applicant's arguments filed 22 February 2006 have been fully considered but they are not persuasive.

Applicant argues with respect to the 35 USC 103 rejections. Applicant's arguments appear to be on the grounds that:

1) Laney does not teach monolayer PLA material because Laney would have expected that monolayer extrusion would have torn if inorganic material were added to the blend.

The Applicant's arguments are addressed as follows:

1) Laney does not disclose a prediction of failure when made as a monolayer.

Moreover, since Matsumoto teaches making a stretching a monolayer embodiment of polyester with inorganic material in the blend, it is relied upon for the technique of putting inorganic material into the blend and stretching successfully.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick Butler whose telephone number is (571) 272-8517. The examiner can normally be reached on Mon.-Thu. 7:30 a.m. - 5 p.m. and alternating Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick Butler  
Assistant Examiner  
Art Unit 1732



**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**